# DEVELOPING PATIENT EDUCATION HANDOUTS

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## INTRODUCTION

In recent years, patients have increasingly requested the opportunity to participate more fully in their medical care. An important part of responding to this request is the production of educational handouts that inform patients about health problems, describe medical treatments, and promote healthy behaviors.

Developing effective patient education handouts is often difficult. Many caregivers have neither the time nor the training to write and design them. Even writers schooled in English or journalism may find that they are unprepared to write instructions that patients must understand thoroughly and follow closely and that may be read in several different circumstances. Grammatically correct sentences are not enough; writers must be creative, flexible, and sensitive in their use of language, illustrations, and graphic design to address the variety of audiences and uses of such handouts.

Conventional handouts usually record descriptive information about diseases or reiterate the advice given by caregivers. As such, they are useful extensions of spoken communication. However, increased understanding of how readers make sense of written texts, how notions of "reality" are created and maintained, and how behaviors can be influenced have resulted in the possibility that patient education handouts can be effective enough to be thought of as a form of what is being called *bibliotherapy*.

To produce handouts that can be therapeutic in their own right, writers need to adapt a new orientation to their task, become familiar with a new body of knowledge, and master a new set of skills. Thus, in this booklet I describe how to develop effective patient education handouts. (I've used the term "handout" here because I've limited the discussion to written, printed materials.) I discuss the qualities of effective handouts and present several techniques to enhance these qualities. I also suggest a series of tasks for producing handouts efficiently and for evaluating their effectiveness with patients.

## WHY ARE PATIENT EDUCATION HANDOUTS IMPORTANT?

Patient education handouts are important because:

• **They are an extension of medical care and can affect its quality.** The primary purpose of patient education handouts is to improve patients' health and quality of life. Effective handouts should thus improve adherence to prescribed behaviors by changing or reinforcing patients' knowledge, skills, values, or choices related to their health.

• **Spoken messages are forgotten quickly and so need to be reinforced with informative handouts.** The facts in a spoken message are quickly lost and reinterpreted. Well written handouts counter this loss and reinterpretation by reducing the need to remember spoken instructions and to guess at forgotten meanings.

• **Patients form opinions about their caregivers from patient education handouts.** Handouts communicate both a message (the instructions patients should follow) and a "meta-message:" how important the message and the patients are to the caregiver. Thus, well written, attractive handouts say, "This information is important to you [and by implication, so are you]." The message and meta-message also have important marketing implications for the institution.

## WHAT MAKES EFFECTIVE HANDOUTS?

Well prepared handouts are:

• **Easily accessible.** Information can be made more accessible by including it on items patients already use regularly: calendars, bookmarkers, wallet-size reference cards, and so on. A handout whose only function is to inform patients may be easily put aside and forgotten; a handout with additional functions can keep the information close to its intended audience.

• **Appropriate for patients' needs.** Handouts should enable patients to respond to specific health needs by providing information that is necessary and sufficient to direct and to promote patients' self-care. Also, many patients appreciate a list of additional readings on the topic.

• **Easily understood.** Instructions that are easy to understand are more likely to be read and more likely to be followed.

• **Compatible with the patients' values and lifestyles.** Insofar as possible, handouts should appeal to patients and not offend them. (The intent is not to spare patients from the truth but to avoid making the communication unnecessarily confrontational.)

• **Compatible with other information given to the patient.** Handouts are most effective when they support and are supported by other forms of communication, such as one-on-one teaching, audiovisual programs, and other reading materials. Conflicting information confuses patients and is thus counterproductive.

• **Easily remembered.** Understanding is often not enough; patients may have to recall their instructions before they can follow them.

• **Easily referenced.** Information that is not or cannot be remembered should be easy to find in the handout so that it can be read again when necessary.

• **Visually appealing.** Well designed and illustrated handouts enhance the above characteristics and impart the meta-message that the information they contain is important.

• **Efficiently and economically prepared.** Handouts should be created through a process that results in a timely, well conceived, and quality product and that avoids unnecessary delays, confusion, and costs.

## WHAT CAN HANDOUTS ACCOMPLISH?

Educational handouts are only a small part of the communication patients receive from health care providers. They compete with hundreds of other messages about health and illness and life-style choices, as well as with all the other messages encountered by patients every day. In addition, the association between health knowledge and health behavior is poor. Thus, expectations about what handouts can accomplish need to be kept in perspective.

Handouts are not substitutes for health care services; they are generally not effective in the absence of other, "collateral" communication or behavior change strategies; and they are not effective in presenting all issues or all messages. They can, however, inform patients of important facts, instruct them in performing certain procedures, remind them of important behaviors, and help persuade them to adopt new health behaviors. The value of these functions can be high to both patients and caregivers.

Handouts are relatively inexpensive to produce, in both total and unit costs. Thus, even if only a few patients change their behavior as a result of a handout, the cost-benefits can be significant. If a handout on colonoscopy can prevent a single patient from coming to a medical center unprepared for the exam, which in turn prevents a delay in patient care, an unnecessary trip for the patient, an unfilled appointment time for a physician, the need to schedule another appointment, the need to take another day

off work, and the need to make another trip to the clinic, as well as all the associated emotional consequences of these events, the cost of the handout is undoubtedly worth it.

## HOW TO WRITE EFFECTIVE HANDOUTS

To help readers accept the information in the handout, consider two general principles. First, *be positive* and *encouraging*. Help patients make the best of an unfortunate situation with supportive comments. Assure them that they are not alone and that their caregivers understand their concerns.

Second, *take a "risk and rewards" approach* rather than an "authoritarian" or "paternalistic" approach. Instead of telling patients to stop smoking, educate them about the health risks posed by smoking and tell them that these risks must be compared to the very real personal rewards that maintain the habit. Explaining the risks and rewards of health behaviors asks patients to make informed choices about their behaviors, rather than to follow orders; to be agents in their own care, rather than passive recipients; and to accept responsibility for their actions, rather than guilt or blame.

Remember, too, that patients do not develop disease, diseases develop in patients. Patients are human beings, not "by-passes" or "gall bladders" or "tonsillectomies." Patients also do not "deny" having symptoms, they have not experienced them, and they do not "complain" of symptoms, they report having them. Also, avoid sexist language: not all patients and physicians are men, and not all nurses and parents are women.

A useful way to conceptualize your writing task is to view information as "that which reduces uncertainty." Your task is to provide information that will reduce patients' uncertainty about their health problems and what do to about these problems. You may also want to consider three kinds of information: awareness information, how-to information, and principles information.

**Awareness information** makes people aware of new possibilities, and sometimes this kind of information is all you need to provide. For example, simply informing patients suffering from low back pain that the pain usually goes away on its own can dispel many fears.

**How-to information** allows people to act; to take advantage of new treatment options. Showing the patient with low back pain how to relieve the pain by lying supine with the calves on a chair to reduce lumbar lordosis is how-to information.

**Principles information** explains why something works or why it is important. This kind of information helps people accept the necessity of unpleasant behaviors and

it allows them to respond appropriately in new situations. Teaching patients with back pain about what makes a muscle spasm and what actions reduce the spasm allows them to use these principles to find their own solutions to individual problems.

## WAYS TO IMPROVE UNDERSTANDING

*The keys to writing good patient education handouts are to organize the handout according to the reader's need for information and to write from the reader's point of view.* Research shows that the techniques described below promote patients' ability to understand a text.

• **Use informative titles and headings**. A descriptive heading is a label for a topic: "Incentive Spirometry." An informative heading relates the topic to the reader: "Why We Want You to Use an Incentive Spirometer." A related technique is to use headings that correspond to the questions asked by your readers: "What is an Incentive Spirometer?"

• **Use a three-part introduction**. First, tell readers why the information in the handout is important to them; second, tell them what the handout is designed to accomplish; and third, tell them how the handout is organized and what to expect when reading it. For example, the three sentences in the introduction below correspond to these three parts:

> "Until your knee surgery has healed, putting weight on the weakened joint can slow your recovery and even damage your knee further. Crutches allow you to walk without putting your weight on your injured leg, so learning to use them correctly will allow you to walk while letting your knee heal as soon as possible. This handout shows you how to walk, sit down, stand up, and climb stairs with your crutches and tells you when you can begin to put weight on your leg."

• **Organize the handout logically and make the reader aware of this organization.** Give your readers an "information map" of your handout so that they can see where you are directing them and how you will get them there. Reduce their uncertainty about what they will read as early as possible in the handout.

• **Use personal pronouns**. Write to the reader; use "we" and "you:" "We believe you will feel better after 24 hours." If the information may be too confrontational, use the third person: "People with this disease may be disabled for a long time." Contractions and an informal writing style can also help patients feel at ease: "We'll see that you've been taken care of."

• **Prefer the active voice but use the passive voice when necessary.** The active voice ("Take your medication before meals.") is usually easier to read than the passive voice ("The medication should be taken before meals.") and avoids some other grammatical problems as well.

• **Use words familiar to your readers.** Unfamiliar words create uncertainty instead of reducing it. "Caring for Your Ear Tube" is better than "After Your Myringotomy." Obviously, many medical terms will be unfamiliar to patients, and patients may need to know new terms to understand their caregivers. If you have to use unfamiliar words, be sure to define them. Consider including a glossary in long handouts.

• **Prefer shorter sentences and paragraphs.** Large blocks of text and long sentences intimidate many readers and may make information harder to understand. However, sentences that are too short can seem condescending: "Measure the medication carefully. Take it at bedtime. Call us if you have any bad reactions."

• **Use strong topic sentences.** Good topic sentences help readers know what to expect from the paragraph (they reduce uncertainty), which makes the text easier to understand and to remember.

• **Use illustrations, simple tables, and lists.** When used appropriately, these design elements communicate better than prose. The level of detail should be appropriate to convey the information, especially in illustrations; too much detail may increase uncertainty instead of reducing it.

• **AVOID nominalizations.** Instead of saying: "The doctor will perform a test on you for hepatitis," say: "The doctor will test you for hepatitis." (When the verb "to test" is changed to the noun "test," a new verb has to be added to complete the sentence. The new verb----in this case, "perform"----is usually weaker than the verb it replaces.)

• **AVOID the excessive use of upper case letters.** BLOCKS OF TEXT IN UPPER-CASE LETTERS ARE HARDER TO READ THAN TEXT IN lower-case or Mixed Upper- and Lower-Case Letters. Reserve upper-case letters for headings and for adding EMPHASIS to the text.

• **AVOID noun strings (stacked modifiers).** "Three-dimensional, color, pulsed-wave Doppler transesophageal echocardiography" has five adjectives for one noun. By the time the reader gets to the noun, the first adjectives have been forgotten. (In this case, probably all you need to say is "The procedure is called echocardiography.")

• **AVOID double negatives and negatives with qualifiers.** "Your child should not not go to school because of the infection" really means that "Your child may go to school, even with the infection." Many people have trouble with negatives combined with

qualifiers, too: "Do not remove the bandage, except if it gets wet or until it becomes too loose to protect the stitches," as opposed to “Keep the bandage on as long as it is dry and protecting the stitches.”

## WAYS TO IMPROVE RECALL

Information presented with the following conventions is likely to be recalled better than if these conventions are not used:

• **Visual cues.** Graphic features, such as **boldface type**, *italic type,* UPPER CASE LETTERS (used sparingly), bullets (•) and icons (    ), create visual reference points for remembering information.

• **Lists**. Lists aid recall by ordering information into a sequence of separate elements. This organization is visual as well as linguistic.

• **Mnemonic devices.** Simple rhymes, catchy abbreviations, and clever mnemonics aid in recalling information. For example, the abbreviation RICE----rest, ice, compression, and elevation----reminds people what to do for sprained joints.

• **Associations**. Metaphors help people remember by linking new information to familiar information. Describing an aortic aneurysm as a "ballooning of the wall" that could have serious consequences if it "pops" employs the metaphor of a balloon to convey both the nature of the problem and the care with which it needs to be treated.

• **Personalized examples.** Much learning occurs through modeling, and personalized examples can provide good models. Such examples are especially valuable for helping patients cope with new situations. "Sally, another alopecia patient, also worried that the loss of her eyebrows would make her unattractive. We showed her how a combination of makeup and glasses with clear lenses could cover the loss of her eyebrows, and she was happy with the results."

• **Humor.** Humor----if used wisely----can aid in recalling information and add a pleasing tone to a handout. Humor can be culture-specific, however, and it is not always easy to determine whether a statement is appropriately funny for the audience and the circumstance.

## WAYS TO IMPROVE FINDING INFORMATION

Many of the above conventions, such as informative headings, visual cues, and graphic design elements, also help readers find information. In addition, consider the following options, especially for longer handouts:

• **A table of contents**. Consider an annotated contents page that contains more information than just section headings.

• **A decision table.** A decision table is just that: a table containing information to help locate information for decision making. For example:

| For help with . . . | Contact . . . | At extension. . . |
|---|---|---|
| Appointments | the Appointment Desk | 4445 |
| Insurance claims | Patient Financial Services | 1324 |
| Prescription drugs | the Hospital Pharmacy | 9822 |

• **A key-word index.** Remember to cross-reference terms by the way readers use them. Patients needing information about medications may look under "drugs," "pills," "medicine," "tablets," "capsules," and so on. Too many cross-references in the text are better than too few.

• **A physical indexing system.** Color codes, index tabs, and positional scales in the outside margins of a page that indicate the position of the text relative to the preceding and following text can be useful aids.

• **A numbering system.** Paragraphs, sections, and chapters may be numbered sequentially to help readers locate them. Also, be sure to include page numbers on longer handouts.

• **Cross-references in the text.** You can direct readers to other parts of the handout by referencing these parts in the text: "See the section on pain control for more information about this medication." Too many cross-references may be confusing, however.

## WAYS TO IMPROVE PATIENT ADHERENCE

Several theories from the social sciences lend themselves to the design of patient education handouts. I described here techniques from two such theories that are particularly useful: the *Diffusion of Innovations*, which is the study of how new ideas and products spread through a social system over time, and *Social Marketing*, which is the application of commercial advertising and marketing techniques to promote behavior change.

### Presenting the Recommended Behaviors

The value of patient education handouts rests on the belief that handouts will help patients to behave in ways that improve their health. For this improvement to

occur, patients must choose to adhere to the recommendations described in handouts, not just understand them. To encourage patients to accept recommended behaviors:

• **Emphasize the *perceived* advantages of the behavior over the alternatives.** These advantages may not be merely the "objective" ones of curing illness or reducing discomfort; convenience, cost, social approval, personal satisfaction, and so on may also be advantages: "Taking all your medication as prescribed will prevent the infection from returning, saving you additional trips to the doctor and reducing your medication costs."

• **Emphasize the compatibility of the behavior with patients' values and lifestyles.** Behaviors are easier to adopt if they do not disrupt existing patterns: "The implanted inflatable penile prosthesis is not visible and will not be noticed in locker rooms or public restrooms."

• **Minimize or de-emphasize any complexity associated with the behaviors.** Simple behaviors are easier to adopt than complicated ones: "Although changing your ostomy bag may be difficult at first, this short checklist will guide you through the process. Most patients learn the process after only a few days."

• **When possible, stress the "triability" of the behavior; the chance to try the behavior on a limited basis before a full commitment is required.** Insisting on immediate and full adherence to a challenging recommendation may not be as effective as allowing the patient to progress in several small steps: "If you have any bad reactions to the sample medication we have given you, call us and we will change your medication before giving you a full prescription."

• **When possible, stress the visibility of the results expected from the behavior.** "Seeing is believing," even in medicine. Telling patients that their bodies will be repaired through heart surgery is not as effective as pointing out that they will be able to do more and feel better after surgery: "Walking is an important part of your recovery from a heart attack. As you recover, you will notice that you can walk farther and will feel less tired."

## Supporting Patients Through the Decision-Making Process

In addition to stressing the above characteristics of the recommended behaviors, handouts can be made more effective by addressing the patients' needs as they move through the stages of choosing the recommended behaviors:

• In the **knowledge stage**, patients learn something about the recommended behavior and what it is supposed to do. Awareness, how-to, and principles knowledge (see above) are helpful at this stage. "Heart disease is potentially fatal. Reducing your fat

intake, exercising regularly, and quitting smoking will reduce your risk of premature death by slowing the build-up of plaque in your arteries."

• In the **persuasion stage**, patients form opinions about the behavior. Describing the behavior in terms of the five characteristics listed above can increase the likelihood that the opinions will be positive. "You can do more to reduce your risk of heart attack than anyone else. Lifestyle changes are not always easy, but they generally will leave you feeling better physically and mentally."

• In the **decision stage**, patients make plans to adopt the behavior. Handouts can prepare patients for this stage by describing everything that needs to be done to make the behavior possible. "You can start by filling your prescription for this cholesterol-lowing drug, joining our health club, and eliminating fatty foods from your diet."

• In the **implementation stage**, patients actually engage in the behavior. A good handout will have eliminated any uncertainty about the experience associated with the behavior so that there are no surprises. "In the beginning, you can expect to crave the high-fat foods that you used to eat. These cravings can be quite strong, but they will pass as you become accustomed to your new diet."

• In the **confirmation stage**, patients decide whether they have made the right choice. Handouts can support patients in this stage by describing the experience of others who have made the same choice or by directing patients to call their caregivers for encouragement. "By participating in our cardiac rehabilitation program, you join hundreds of other patients, who, like you, have greatly reduced their risk of heart attack and stroke."

## Strategies of Persuasion

The following strategies seek to persuade patients by appealing to their personal and social needs.

• **Consistency.** The need to be (or appear to be ) consistent in thought and action is a strong one for most people. Thus, identifying patients' values and addressing the desired behaviors in terms of these values should be productive. "Friends don't let friends drive drunk" is an example of an attempt to persuade people to behave as friends are expected to behave: by taking care of intoxicated friends rather than letting them risk hurting themselves and others by driving irresponsibly.

• **Conformity.** Despite the fact that most Americans place great emphasis on individuality, most people also need to conform to certain conventions so as not to be

seen as "deviant." Patient education handouts can sometimes appeal to this need: "You, like most patients with this diagnosis, should be concerned about your eating habits."

• **Modeling**. Models, or people who serve as good examples of a behavior, can help legitimize certain behaviors. For example, television personalities who have undergone treatment for an eating disorder can be described to encourage patients to undertake similar treatment.

• **Credibility.** Patients are more likely to follow directions given by credible sources, and health care professionals----especially physicians----are usually seen as credible. Handouts that establish the credibility of the health care team may improve the effectiveness of the message: "We perform more than 2300 of these procedures each year, and our staff is specially trained to work with children." An indirect way of establishing credibility is to be direct and truthful. When patients' expectations are met, the source of the expectations becomes more credible: "The test will take between 20 and 30 minutes, and you need not wait for the results."

Credibility should not be confused with authority. The authoritarian approach can be effective (in that it may result in "compliance"), but it may also intimidate or be resented by many patients.

• **"Framing."** Framing is the process of guiding interpretations by controlling the comparisons made by the reader. Thus, a procedure could be described as having either a 10% failure rate or as being successful in 90% of patients. Both descriptions are technically accurate, but each frames the procedure differently: one calls the patients' attention to the failures, the other, to the successes.

## A PROCEDURE FOR DEVELOPING HANDOUTS

A good procedure for developing patient education handouts should allow you to incorporate the desires of your clients (those who initiate the request for handouts) with the needs of your patients in the context of your institution. The procedure described here is straightforward and effective. It consists of 11 tasks:

Task 1: Analyze the need for patient education
Task 2: Characterize the target audiences
Task 3: Propose an outline, budget, and production schedule
Task 4: Clear the proposal with your client
Task 5: Write and design the handout
Task 6: Have your client review the handout
Task 7: Revise the handout
Task 8: Have readers and clients evaluate the handout

Task 9: Revise the handout and get approval to print it
Task 10: Have the handout printed
Task 11: Review the printed handout before distributing it

## Task 1: Analyze the need for patient education.

Most patient education materials are initiated by caregivers who believe that a handout would save them time, benefit their patients, or both. The first task, then, is to interview the caregivers----who are now your clients----to clarify their need. In short, your job is to determine "*who* wants to say *what* to *whom* in *what way* with *what result*." In some cases, you may need to survey caregivers, patients, or both, to identify their needs. At the end of this needs assessment, you should have some idea of the purpose, audience, subject, characteristics of use, and format of the proposed handout.

Assuming that you can determine the nature of the proposed handout from your interview with the caregivers, you may want to determine if such a handout already exists. Several companies produce patient education materials, and suitable handouts may be available from other institutions or non-profit organizations. However, many institutions would rather create their own materials because they have complete control over the content and quality and because they prefer to have their own name associated with the information.

Handouts generally have one (and sometimes more than one) of three broad focuses. A **procedural focus** is concerned with helping patients prepare for a medical test or procedure. Such handouts often include the technical details of the procedure, an account of what the patient may experience during the procedure, and directions and logistic information that guide the patient through the patient care system. (Anecdotal evidence suggests that men may prefer information on the technical details of the procedure, whereas women may prefer information on the experiential details of the procedure.) A handout with a procedural focus must usually be written for a specific service at a specific institution and is actually a part of patient care.

A **topical focus** is used to inform patients about health-related subjects, such as specific diseases or operations. Such handouts can be distributed to a general audience (including readers outside the institution) and are usually intended to make people aware of a health risk or of a treatment option. These handouts can often be marketed to other institutions because they include general information.

Handouts with a **marketing focus** are written to sell an institution's health care services to prospective patients. Marketing handouts describe the benefits of an institution or of a particular service at the institution, such as a special Heart Center or a community-based birthing unit. Name recognition and strengthening the institution's

reputation and credibility are the primary purposes of handouts with a marketing focus.

The implications of these three broad focuses are indicated in the table below. Handouts with more than one focus should be examined carefully to determine whether they can actually be effective in each focus.

**Summary of the Implications of the Focus of Patient Education Handouts**

| When the reader is approached as: | The focus will probably be: | The distribution will probably be: | The reader will ask: |
|---|---|---|---|
| A person concerned with health | Topical | General | Does this topic concern me? |
| A consumer | Marketing | Regional | Would I go there for care? |
| A patient | Procedural | Institutional | What will happen to me and what do I need to do? |

## Task 2: Characterize the target audiences.

Once you know the purpose of the handout, the next and most important task is to characterize the audiences. In addition to the three types of focus described above, it may help to think in terms of a **primary audience** who will act on the information in the handout and a **secondary audience** who may be affected by the actions of the primary audience.

Patients may belong to either the primary or secondary audiences. Most of the time, the patient will be the primary audience; that is, the patient will be the reader for whom the information is intended. However, the primary audience for handouts concerning the very young, the very old, or the very ill may consist of friends and family and not the patients themselves. Depending on the medical condition in question, it may be wise to identify all the people who are involved in the patient's care and to address their information needs as well.

One common information need of family caregivers is to know that the patient's illness can affect them in surprising ways. Most family caregivers sincerely want to help their loved one recover, but they can feel powerless if the illness is prolonged, degenerative, incurable, or otherwise unresponsive to their care. Sometimes this powerlessness is expressed by blaming the patient for disrupting the family with the illness, for not responding to the family's efforts at caring, or for somehow bringing on the illness. Handouts can 1) call attention to the possibility of blaming the patient, 2) reassure caregivers that this reaction is understandable, if uncomfortable and undesirable, and 3) suggest ways in which they can cope more effectively.

Perhaps the single most important characteristic of your readers is their ability to read. *A large portion of the US population is functionally illiterate.* Patient education handouts can be designed to meet the needs of nonreaders, but many of the assumptions that allow readers to make sense of a text cannot be made with nonreaders. Other factors to consider in analyzing the audience include: age, gender, visual or hearing impairments, degree of anxiety about their health, level of education, native language, and cultural expectations.

You should also be able to answer the following questions about your audience:

- What do they already know?
- What do they believe that may be incorrect?
- What don't they know?
- What do they want to know?
- What do their caregivers want them to know?

## Task 3: Propose an outline, budget, and production schedule.

Before you begin to write, define the audience, purpose, subject, characteristics of use, format, and budget of the handout. Decisions about what to include in the handout can then be made by judging them against these criteria.

**Purpose**: What, specifically, do you want patients to do or to do differently?

**Audience**: Who will read the handout and act on the information it contains? Describe the primary and secondary audiences and list any characteristics that require special attention.

**Subject**: Define the topics to be covered and the level of detail to be included. Also, list any specific issues that are to be addressed.

**Characteristics of use**: Where will the handout be read or referred to most often? Handouts to be used in the bathroom may need to be plastic-coated; others may be most effective if designed to be affixed to a refrigerator door; still others may need to fit in a shirt pocket.

**Format**: Is a printed handout the best format for the occasion? What size should the handout be? What weight of paper will you use?

**Budget**: How many handouts will you print? What is the maximum you can spend? What is an acceptable unit cost? Will you use drawings or photographs? Can you afford two, three, or even full-color printing?

## Task 4: Clear the proposal with your client.

The value of getting your client's approval on your proposal before you begin writing is obvious, but make sure that the right people are consulted and that those with final authority approve of your proposal.

## Task 5: Write and design the handout.

Probably the most efficient way to write a handout is to interview the clients, write a draft, and have the clients respond to the draft. As a trained writer, you will probably write a better draft in less time than your clients can. In addition, changes are more easily made because the clients are changing *your* text, not theirs.

At this stage you should also consult with a graphic designer and an illustrator. The most effective handouts integrate text, illustration, and design, and this integration is accomplished best when it begins early in the development process. In most institutions, the medical writer or editor is responsible for coordinating the design and illustration of the handout.

## Task 6: Have your client review the handout.

Your client is responsible for the accuracy, currency, and completeness of the content; you are responsible for everything else. Be sure all medical terms and drug names are spelled correctly and that all telephone numbers ring where they are supposed to ring.

## Task 7: Revise the handout.

Caregivers often focus on technical considerations at the expense of communicative effectiveness. You may have to advocate for the patients as readers when negotiating with your clients during the revision stage.

## Task 8: Have readers and clients evaluate the handout.

Before the handout goes into production, you would be wise to assess its acceptance by the intended audience and by its institutional sponsors. A good

evaluation with a well chosen sample of patients will provide answers to these questions:

**Do readers understand the information?** Have the group demonstrate this understanding by answering questions about the handout or by performing the prescribed skill using only the handout as a guide.

**Do readers remember the information?** Test the group for their recall of the most important points after, say, a week or 2 months.

**Can readers find the information?** Watch the group use the handout to find information and note any difficulties. You can also time them to see how long it takes to locate specific information.

**Do patients accept the information?** For example, some patients with breast cancer may object to a photograph of a woman's breasts, in which case a line drawing may be more acceptable.

**Will patients use the handout?** Ask the group how valuable they believe the handout will be to them. If they don't like it, they won't use it.

**Is the handout acceptable to the caregivers and to the institution?** Do caregivers like the handout and will they give it to their patients? Does the handout reflect well on the institution?

How well the handout meets these criteria should indicate how effective it will be with patients, caregivers, and the institution.

Perhaps the easiest evaluation technique is to **interview** three or four patients about their reactions to the handout. This inexpensive technique can be surprisingly valuable.

A second and even more productive method is to **test a sample of readers** about the content and appearance of the handout. Ask for their opinions about the value of the handout and on how it might be improved. Pre- and posttests on important information can demonstrate the value of the handout.

The most thorough form of evaluation is probably **read-aloud protocol analysis**, in which a reader is asked to read the handout and to "think out loud" as he or she interprets the text. By reviewing several of these sense-making "protocols," you can identify those parts of the handout that are confusing, objectionable, or unnecessary and can rewrite them accordingly.

**Readability formulas** attempt to characterize a text with a single number that represents the grade level at which the "average" reader would understand the text. (Gunning's "Fog Index," Flesch's Reading Ease Formula, and the Fry Graph Reading Level Index are among the more common formulas.) Based primarily on sentence length, the percentage of multisyllabic words, or some combination of these two factors, the formulas assume that all texts with these same mathematical relationships are equally easy to read. None of the formulas provide for the use of illustrations, lists, tables, or graphic design elements; none compensate for differences in content complexity or organization; and none take into account the qualities of the readers: their motivations, emotional states, knowledge of the topic, and so on. For these reasons, *readability formulas are not suitable for evaluating patient education handouts*.

"**Gatekeeper review**" refers to the evaluation of the handout by those ultimately responsible for approving its distribution to patients----usually physicians, nurses, or allied health professionals. If gatekeepers do not approve of the content and format of the handout, they probably won't use it, no matter how well it has been prepared or how well it is received by patients. If you have kept your clients informed all along about the development of the handout, gatekeeper review should pose no problems.

Institutions may have several other gatekeepers: legal offices, patient education departments, marketing departments, public relations offices, and so on. Make sure to consult the right people.

## Task 9: Revise the handout and get approval to print it.

Revise the handout on the basis of the above evaluations. Extensive revisions may require additional evaluations.

When your client approves the final form of the handout, you are ready to have it printed. Be sure to conduct a **final edit check**: one last look through the handout before it goes to press. The final edit check is your last chance to make changes----the last chance to fix the misspellings, omitted words, awkward sentences, and unanswered questions that will otherwise come back to haunt you after the handout has been printed and distributed.

## Task 10: Have the handout printed.

The printer does most of the work here. You should ask to see a "blue line," which is literally a blue print of the plate from which the handout will be printed. Read the blue line closely: this is *really* the last time you can make changes, and you will be

charged for them. Also, this is the place you check the printer's work; make sure the photos are right-side-up and in focus, that all paste-up marks have been removed, and that all the elements on the page are aligned.

## Task 11: Review the printed handout before distributing it.

Before you distribute the printed handouts, check a printed copy once again for errors. It's too late to correct these errors, but you may avoid embarrassing yourself and your institution by stopping distribution if the logo is in the wrong colors or the cover is bound upside-down.

## A FINAL NOTE

Many people continue to think of writing as a process of encoding and decoding a message; if the message is well crafted (that is, well encoded), it will be understood (decoded) as intended. This model of communication is too simplistic and not as productive as the model of writing as a social relationship. To be a good host, you must anticipate and respond to the information needs of your readers; you must be courteous to them and respect their points of view. You must not be boring, or talk above them, or confuse them. Perhaps the best advice for writing patient education handouts is a restatement of the Golden Rule: "Do unto your readers as you would have writers do unto you."

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Thomas A. Lang, MA, is a long-time member and Fellow of the American Medical Writers Association (AMWA) and of the Council of Science Editors (Formerly the Council of Biology Editors). Through these associations, he teaches workshops on several topics, including the preparation of patient education handouts, and in 1994 received AMWA's Golden Apple Award for Outstanding Workshop Leader. Formerly the Manager of Medical Editing Services at the Cleveland Clinic and Senior Scientific Writer at the New England Medical Center, he is currently a medical communications consultant. A graduate of the Annenberg School of Communications at the University of Southern California he is co-author (with Rosalind Reed, PhD) of *Health Behaviors*, a college text on personal health and (with Michelle Secic, MS) *How to Report Statistics in Medicine: Annotated Guidelines for Authors, Editors, and Reviewers, Second Edition, 2006*.

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